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IN THE

# Supreme Court of the United States

OCTOBER TERM, 1978

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**Nos. 78-911 and 78-1036**

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INDUSTRIAL UNION DEPARTMENT, AFL-CIO,
*Petitioner,*
v.
AMERICAN PETROLEUM INSTITUTE, *et al.*,
*Respondents.*

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RAY MARSHALL, SECRETARY OF LABOR,
*Petitioner,*
v.
AMERICAN PETROLEUM INSTITUTE, *et al.*,
*Respondents.*

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**On Petitions for a Writ of Certiorari to the United States Court of Appeals for the Fifth Circuit**

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## MEMORANDUM OF THE AMERICAN IRON AND STEEL INSTITUTE IN SUPPORT OF PETITIONS FOR A WRIT OF CERTIORARI

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## TABLE OF CONTENTS


| | Page |
|---|---|
| TABLE OF AUTHORITIES | ii |
| QUESTIONS PRESENTED | 2 |
| COUNTERSTATEMENT OF THE CASE | 3 |
| REASONS FOR GRANTING THE WRIT | 11 |
| CONCLUSION | 13 |

TABLE OF AUTHORITIES

CASES: Page

*American Petroleum Institute* v. *Occupational Safety and Health Administration*, 581 F.2d 493 (5th Cir. 1978) ..... *passim*
*American Iron and Steel Institute* v. *OSHA*, 577 F.2d 825 (1978) ..... 9, 12

STATUTORY PROVISIONS:

Occupational Safety and Health Act of 1970, 29 U.S.C. §§ 651-678

29 U.S.C. § 651 ..... 3
29 U.S.C. § 652 ..... 3, 9
29 U.S.C. § 655 ..... 3, 4, 10

REGULATIONS:

Benzene Standard, 29 C.F.R. § 1910.1000 Table Z-2 (1977) ..... 4
Coke Oven Emissions Standard, 29 C.F.R. § 1910.1029 (1977) ..... 11

ADMINISTRATIVE PROCEEDINGS:

41 Fed. Reg. 46742 (Oct. 22, 1976) (adoption of Coke Oven Emissions Standard) ..... 11
42 Fed. Reg. 22516 (May 3, 1977) (adoption of Emergency Temporary Standard for Benzene) .. 6
42 Fed. Reg. 27452 (May 27, 1977) (proposal of permanent Benzene Standard) ..... 6
43 Fed. Reg. 5918 (February 10, 1978) (adoption of Benzene Standard) ..... 7, 8

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The American Iron and Steel Institute ("AISI") and certain individual steel company respondents [1] submit this Memorandum in Support of the Petitions for a Writ of Certiorari to the United States Court of Appeals for the Fifth Circuit which were filed in the above-styled actions by the Industrial Union Department, AFL-CIO ("IUD") and the Secretary of Labor (the "Secretary") on December 7, 1978 and December 26, 1978, in Nos. 78-911 and 78-1036, respectively. Citations to the opinion below (*American Petroleum Institute* v. *Occupational Safety and Health Administration*, 581 F.2d 493 (5th Cir. 1978)), and the regulations in question, a statement of the basis for this Court's jurisdiction, and references to the statute involved in this proceeding are set forth in the Petitions filed by IUD and the Secretary.

## QUESTIONS PRESENTED

1. Whether the Secretary has unbridled discretion to adopt occupational health standards that impose enormous costs on American employers and consumers, without making (or even attempting to make) a determination that the requirements of such a standard are "reasonably necessary or appropriate to provide safe or healthful employment and places of employment."

2. Where the Secretary has made no effort whatsoever to estimate the health benefits of reducing benzene exposures from 10 parts per million ("10 ppm") to 1 ppm and has identified no evidence showing what benefits, if any, can be expected to result from such a reduction, is his conclusory determination that the expected benefits "are likely to be appreciable" supported by substantial evidence?

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[1] Bethlehem Steel Corporation, Cyclops Corporation, Jones & Laughlin Steel Corporation, National Steel Corporation, Shenango Incorporated and United States Steel Corporation.



## COUNTERSTATEMENT OF THE CASE

The Occupational Safety and Health Act of 1970 (the "Act") authorizes the Secretary, acting through the Occupational Safety and Health Administration ("OSHA"), to promulgate occupational safety and health standards that are "reasonably necessary or appropriate to provide safe or healthful employment and places of employment." 29 U.S.C. §§ 652(8), 655. Recognizing that industrial health resources are not unlimited and that workplace health and safety risks cannot be eliminated entirely, Congress endorsed the objective of assuring safe and healthful working conditions "so far as possible" (29 U.S.C. § 651(b)) and placed a number of practical limitations on the Secretary's authority to adopt health standards for the regulation of toxic substances. Not only must such standards (like all standards under the Act) be "reasonably necessary" to protect worker health; they also must be based upon the "best available evidence"—including the "latest available scientific data" and "experience gained under . . . other health and safety laws"—and, in all cases, must be "feasible." 29 U.S.C. § 655(b)(5).

Benzene is a toxic material to which the foregoing statutory provisions are applicable. It is a "ubiquitous hydrocarbon compound" (581 F.2d at 497, App. A at 5a) [2] that is naturally present in water supplies, animal and plant matter and many foods, and that may be found in the ambient air at background levels approaching 0.5 ppm.[3] Approximately 94% of the benzene pro-

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[2] "App." references are to the Appendix submitted by Petitioner IUD in No. 78-911. References to the administrative record are abbreviated as "Tr." for the Transcript and "Ex." for Exhibits.

[3] *See, e.g.*, Testimony of Dr. Herman F. Kraybill (National Cancer Institute), Ex. 84B-18, App. A at 2-3, Tr. 1176, 1192-94; Testimony of Edward Baier (NIOSH), Ex. 84A at 7, Tr. 749-50, 1132;

duced in the United States is derived from the refining of crude oil, and approximately 6% is produced as a by-product of the coking process in the steel industry. 581 F.2d at 497-98, App. A at 6a. Among its many uses, benzene serves as an octane-boosting component in gasoline production, as a petrochemical feedstock and as an industrial solvent; it also has a wide range of other industrial applications. *Id.*

Since the turn of the century, it has been recognized that benzene exposures at sufficiently high concentration levels are capable of producing acute and chronic non-malignant effects in humans. 581 F.2d at 498, App. A at 6a-7a. Because of its toxicity, benzene exposures have been regulated by various states and standard-setting organizations for several decades. *Id.* In 1971, pursuant to 29 U.S.C. § 655(a), OSHA adopted the 10 ppm threshold limit value of the American National Standards Institute (a national consensus standard) as an effective OSHA standard for benzene. *Id.* That standard (of 10 ppm as an eight-hour time-weighted average limit [4]) was codified at 29 C.F.R. § 1910.1000 Table Z-2 (1977) and is presently in effect.

During the 1970s, several investigators reported findings tending to confirm earlier indications of an association between chronic exposure to high benzene concentrations (in the hundreds of ppm) and an increased incidence of leukemia. For example, Dr. Muzaffer Aksoy, a witness upon whom OSHA relied heavily, reported

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Mobil Research and Development Corp. Memorandum, Ex. 117 at 1-2; Memorandum of Nelson A. Leidel (NIOSH), Ex. 95 at 2, 4; July 12, 1977 letter from Charles Custard, Director, HEW Office of Environmental Affairs, Ex. 205A at 2.

[4] This means that a worker will not be exposed to more than 10 parts benzene per million parts of air as a time-weighted average over the course of an eight-hour working day.



leukemia cases among workers employed in unhygienic and poorly ventilated Turkish shoe shops where benzene exposures ranged from 150-650 ppm.[5]

The studies of Dr. Aksoy and others,[6] which showed that benzene exposures in excess of 100 ppm could increase the risk of developing leukemia, were known to OSHA and various scientific bodies prior to 1977. Yet this evidence associating high level (100 ppm and above) benzene exposures with leukemia did not persuade prestigious scientific bodies such as the National Research Council and the International Workshop on the Toxicology of Benzene that the 10 ppm standard was inadequate to protect worker health.[7] Indeed, during 1976, OSHA itself refused two requests to reduce the exposure limit from 10 ppm to 1 ppm.[8]

What suddenly induced OSHA to order an immediate reduction in permissible benzene exposures from 10 ppm to 1 ppm was an April 1977 report (the so-called "Infante Study" [9]) that OSHA initially characterized as demonstrating that leukemia had been induced in workers exposed to benzene levels "significantly below . . . 10 ppm." [10] Largely on the basis of the Infante Study,

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[5] Ex. 60 at 45; Tr. 157, 185.

[6] *E.g.*, Dr. Enrico Vigliani, who reported leukemia cases among workers in Italy. Ex. 2-27.

[7] National Research Council, Committee on Toxicology, *A Review: Health Effects of Benzene* ii (June 1976) (Ex. 2-4); International Workshop on the Toxicology of Benzene, Final Report 7 (November 9-11, 1976), (Ex. 17).

[8] These requests were made by the United Rubber Workers (Ex. 2-42) and the National Institute for Occupational Safety and Health ("NIOSH") (Ex. 2-6).

[9] P. Infante, *et al.*, "Leukemia Among Workers Exposed to Benzene" (April 28, 1977), Ex. 40.

[10] OSHA Opposition to Stay Pending Judicial Review of the ETS, *American Petroleum Institute* v. *OSHA*, No. 77-1973 (5th Cir.) (filed June 1, 1977).

OSHA, on May 3, 1977, issued an emergency temporary standard ("ETS") for benzene, reducing the permissible exposure limit to 1 ppm,[11] and proposed a permanent standard having a comparable limitation.[12] The ETS was stayed by the Fifth Circuit and never took effect. 581 F.2d at 499, App. A at 9a.

At the hearings on the proposed permanent standard in July and August 1977, the Infante Study was subjected to withering criticism directed to both its methodology and interpretation.[13] But even when the methodological and interpretative flaws are overlooked, it was made crystal clear that the workers studied by Dr. Infante were exposed to benzene concentrations that probably averaged 100 ppm or more, with occasional exposure levels of several hundred parts per million. 581 F.2d at 498-99 n.13, App. A at 8a n.13. And one of the authors of the Infante Study observed that anyone who interpreted the study (as OSHA had) to demonstrate that benzene exposures "generally below 25 ppm have already induced leukemia" would be going "off the deep end . . . ." [14]

In short, once OSHA's initial misperception of the Infante Study was corrected, it became clear that the study—which had galvanized OSHA into such precipitous action—added virtually nothing to what had been reported earlier. No one had yet come forward with evidence associating benzene exposures below 100 ppm (let

[11] 42 Fed. Reg. 22516 (May 3, 1977).

[12] 42 Fed. Reg. 27452 (May 27, 1977).

[13] The nature and substance of this criticism is discussed at pages 31-35 of the Post-Hearing Brief submitted by AISI (Ex. 217-36) and at pages 22-46 of the Post-Hearing Brief submitted by the American Petroleum Institute ("API") (Ex. 217-33).

[14] Testimony of Ronald Young, Tr. 815-816. Dr. Infante and Edward J. Baier, Deputy Director of NIOSH, also rejected any such interpretation of the study. Tr. 1137-1140.



alone below 10 ppm) with leukemia, and no one has done so to date. To the contrary, a considerable body of evidence in the record suggested that benzene exposures of 10 ppm presented no leukemia risk whatsoever.[15]

But, even conceding the possibility that benzene exposures of 10 ppm may present some risk of leukemia, the fact is that OSHA identified no evidence establishing what that risk might be and made no effort whatsoever to acquire such evidence or to estimate the extent to which the risk would be reduced if the exposure limit were lowered from 10 ppm to 1 ppm. Instead, OSHA's spokesman at the hearing stated that he could not estimate what incremental benefit or added protection, if any, would be realized by reducing the permissible exposure level.[16] And no attempt was made by the agency to fill this gap in its knowledge.

The final standard, reducing permissible exposures from 10 ppm to 1 ppm, was adopted on February 3, 1978.[17] OSHA justified the required reduction to 1 ppm on the basis of its determinations that high level benzene exposures have been shown to cause leukemia and

[15] Expert testimony pointed to biochemical and physiological evidence of a threshold level for benzene-related leukemia well in excess of 10 ppm, and the record contained references to a large number of studies providing empirical evidence that low level benzene exposures have not been associated with an excess of leukemia. In addition, it was shown that the leukemia cases disappeared entirely when the benzene levels of 100 ppm and above were lowered —though not eliminated—in the industrial populations studied by Drs. Infante, Aksoy and Vigliani, whose reports of an excess incidence of leukemia among workers exposed to high benzene concentrations served as the principal basis for OSHA's determination to reduce the exposure limit from 10 ppm to 1 ppm. This evidence is discussed in the AISI Post-Hearing Brief (Ex. 217-36) at 51-71, and in the API Post-Hearing Brief (Ex. 217-33) at 61-91.

[16] Testimony of Grover C. Wrenn, OSHA's Deputy Director of Health Standards, Tr. 96-97, 130-131.

[17] 43 Fed. Reg. 5918 (February 10, 1978), App. C.

that, while scientific opinion is divided on the question, there is substantial evidence indicating that no absolutely safe level for benzene exposure is presently known.[18] Having made those two determinations, OSHA simply assumed that reducing permissible exposures from 10 ppm to 1 ppm would produce "appreciable benefits" [19] and established 1 ppm as the lowest level that was technologically feasible and that "would not threaten the financial welfare of the affected firms or the general economy." [20]

OSHA acknowledged that various participants in the proceeding (including the President's Council on Wage and Price Stability) had urged it to "estimate the incremental reduction in health risks which are associated with the reduction in employee exposure to benzene." [21] However, OSHA took the position that the Act precludes it from undertaking to estimate the benefits (in terms of reduced risk) that are expected to result from a reduction in the permissible exposure limit and from evaluating those benefits in light of the costs involved.[22] Nevertheless, OSHA blithely asserted that the "benefits of the proposed standard are likely to be appreciable," even though it did not identify or analyze any record evidence that would support such a determination.[23]

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[18] *See* 43 Fed. Reg. 5931-32 (Feb. 10, 1978), App. C at 122a-125a; 581 F.2d at 501, App. A at 13a.

[19] 43 Fed. Reg. 5941 (Feb. 10, 1978), App. C at 162a.

[20] 581 F.2d at 503, App. A at 17a.

[21] 43 Fed. Reg. 5940-41 (Feb. 10, 1978), App. C at 160a-161a.

[22] 43 Fed. Reg. 5941 (Feb. 10, 1978), App. C at 162a. In his Petition for a Writ of Certiorari in No. 78-1036, the Secretary stresses "that this case presents the issue whether Section 655(b) prohibits the balancing of costs and benefits for toxic substances." Petition of the Secretary at 17 n.10.

[23] 43 Fed. Reg. 5941 (Feb. 10, 1978), App. C at 162a.



Petitions for review of the final benzene standard were promptly filed by various parties, including AISI, and consolidated for consideration by the Fifth Circuit. In its argument to the court below, OSHA advanced two principal contentions in support of the standard. First, OSHA asserted that the statutory requirement that occupational health and safety standards must be "reasonably necessary or appropriate to provide safe or healthful employment and places of employment," 29 U.S.C. § 652(8), should be read out of the Act entirely for a substance like benzene. 581 F.2d at 501, App. A at 14a. Second, OSHA claimed that, even if the "reasonably necessary" criterion did apply, it was satisfied by the agency's mere assumption that the benefits of reducing the permissible exposure limit from 10 ppm to 1 ppm are likely to be appreciable. 581 F.2d at 502-503, App. A at 15a-18a. In short, OSHA urged the court below to follow the same course taken by the Third Circuit in upholding the Coke Oven Emissions Standard in *American Iron and Steel Institute* v. *OSHA*, 577 F.2d 825 (1978).[24]

The court below rejected both of these contentions. It declined "to read [the] words [of Section 3(8)] out of the OSHA legislation," holding that "[i]f a standard does not fit this definition, it is not one that OSHA is authorized to enact." 581 F.2d at 502, App. A at 15a. OSHA's position, the court observed, would give the agency "unbridled discretion to adopt standards designed

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[24] Two petitions seeking review of the *Coke Oven Emissions* case, one filed by AISI (No. 78-919) and the other by Republic Steel Corporation (No. 78-918), are pending before this Court. The petitions filed by the Secretary and IUD seeking review of the Fifth Circuit's *Benzene* decision both assert that that decision conflicts with the decision of the Third Circuit in the *Coke Oven Emissions* case. *See* Secretary of Labor's Petition for a Writ of Certiorari in No. 78-1036 at 12-14; IUD's Petition for a Writ of Certiorari in No. 78-911 at 12, 15. As discussed at pages 11-13 below, AISI agrees with this position and urges that certiorari be granted in both cases to resolve the conflict.

to create absolutely risk-free workplaces regardless of cost." 581 F.2d at 502, App. A at 15a. Such a position, the court held, was inconsistent both with the "reasonably necessary" requirement of Section 3(8) and with the "pragmatic limitations" set forth in Section 6(b)(5) of the Act. 581 F.2d at 502, App. A at 16a. Rather, those statutory provisions require OSHA to estimate the expected benefits of its standard and to determine whether those benefits "bear a reasonable relationship to the costs imposed by the standard." 581 F.2d at 503, App. A at 17a.

In the court's view, this obligation to consider the standard's expected benefits in light of the costs imposed was not satisfied by OSHA's conclusory assumption that the benefits of reducing permissible exposures from 10 ppm to 1 ppm are likely to be appreciable. The court noted that OSHA was "unable to point to any studies or projections supporting such a finding." 518 F.2d at 503, App. A at 18a. Moreover, the court pointed out that, despite the fact that risk assessments are commonly made by other federal agencies and that such estimates could be (and, in fact, had been) performed for benzene, OSHA made no effort whatsoever to perform such an analysis of the proposed standard, 581 F.2d at 504 n.23, App. A at 19a n.23.

In short, the court found that OSHA's conclusory statement that appreciable benefits are likely to result from reducing the permissible exposure limit to 1 ppm was based upon assumption and sheer speculation. Particularly since "OSHA [was] unable to point to any empirical evidence documenting a leukemia risk at 10 ppm even though that has been the permissible exposure limit since 1971," the court concluded that the agency's finding of appreciable benefits was not supported by substantial evidence as required by Section 6(f) of the Act, 29 U.S.C. § 655(f). 581 F.2d at 503, App. A at 18a. "Congress," the court stated, "intended for OSHA to regulate on the basis of



more knowledge and fewer assumptions than this record reflects." 581 F.2d at 505, App. A at 21a.

## REASONS FOR GRANTING THE WRIT

Although AISI was a successful petitioner below and submits that the Fifth Circuit's decision was plainly correct, AISI nevertheless believes that certiorari should be granted in this case as well as in the *Coke Oven Emissions* case because of the conflict between the decisions of the Fifth and Third Circuits and the importance of the issues in conflict.

As indicated above, OSHA's determination to reduce the permissible exposure limit for benzene to 1 ppm was based upon its findings (1) that benzene exposures have been found to cause leukemia, (2) that no absolutely safe level of exposure to benzene is presently known, and (3) that a 1 ppm exposure limit is technologically feasible and within the financial capability of the affected industries. OSHA's determination to reduce the permissible exposure level for coke oven emissions to .15 mg/m$^3$ was, *mutatis mutandi*, based upon precisely the same three findings—*i.e.*, (1) that exposures to coke oven emissions have been found to cause cancer, (2) that no absolutely safe level of exposure to coke oven emissions is presently known, and (3) that compliance with a .15 mg/m$^3$ exposure limit is within the technological and financial capability of the coking industry.[25]

In reviewing the Benzene Standard, the Fifth Circuit held that this approach to standard setting does not satisfy the requirements of the Act. Yet in reviewing the Coke Oven Emissions Standard,[26] the Third Circuit held precisely the contrary, stating that the

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[25] *See* 41 Fed. Reg. 46742-46751 (October 22, 1976).

[26] 29 C.F.R. § 1910.1029 (1977).

validity of the standard was established by OSHA's showing that coke oven emissions are a carcinogen for which no absolutely safe level of exposure is known and that the required reduction in the permissible exposure limit is technologically feasible and can be implemented financially without causing "massive dislocation" in the industry.[27]

Moreover, in contrast to the Fifth Circuit's requirement that the mandated reduction in the permissible exposure limit must be supported by substantial evidence, the Third Circuit treated OSHA's determination to establish a 0.15 mg/m³ exposure level as "a policy judgment . . . not a factual determination for which we need to find substantial evidence in the record to support." [28] As pointed out at pages 12 and 15 of IUD's Petition for a Writ of Certiorari in No. 78-911, this holding of the Third Circuit in the *Coke Oven Emissions* case directly conflicts with the Fifth Circuit's decision in the *Benzene* case. And it is precisely this issue—*i.e.*, whether there must be substantial evidence to support OSHA's determination of .15 mg/m³ as the permissible exposure limit for coke oven emissions—that constitutes the most critical element of AISI's Petition in No. 78-919 to review the *Coke Oven Emissions* decision.

Like the Secretary and IUD,[29] we believe that, despite their separate factual records, the decisions of the Third and Fifth Circuits are in conflict, as we stated in our petition for review of the *Coke Oven Emissions* case (No. 78-919). That the two opinions reflect a difference in reasoning and in the approach to be applied in reviewing occupational health standards for toxic substances can

[27] *American Iron and Steel Institute* v. *OSHA*, 577 F.2d 825, 836 (3d Cir. 1978).

[28] *Id.* at 833.

[29] Secretary of Labor's Petition for a Writ of Certiorari in No. 78-1036 at 12-14; IUD's Petition for a Writ of Certiorari in No. 78-911 at 12, 15.



scarcely be denied. Nor is there room to doubt that the cases present important questions of federal law that have an enormous impact on the nation's economy.

While we differ from the Secretary and IUD on the question of which court properly interpreted and applied the relevant provisions of the Act, we agree that the two opinions cannot fairly be reconciled and submit that this Court should grant certiorari to review both decisions and remove the uncertainty currently surrounding these critical issues of proper statutory interpretation and judicial function in the review of OSHA standards.

## CONCLUSION

For the reasons set forth above, AISI agrees with the Secretary and IUD that a writ of certiorari should be issued to review the judgment of the Fifth Circuit in the instant *Benzene* case. And we emphasize that, by parity of reasoning, certiorari should also be granted to review the Third Circuit's *Coke Oven Emissions* decision, as urged in our petition in No. 78-919.

Respectfully submitted,

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